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Data in the MSMR is provisional, based on reports and other sources of data available to the Medical Surveillance Activity. Notifiable conditions are reported by date of onset (or date of notification when date of onset is absent). Only cases submitted as confirmed are included.

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Epidemiologic report

***Shigella sonnei* Diarrhea Associated with Child Development Centers, Fort Belvoir, VA and Fort Bragg, NC**

Outbreak #1

The morning of 3 September 1996, the Environmental Health Epidemiology Technician at Ft. Belvoir notified the Community Health Nursing Department of a 3-year-old child that had a positive stool culture with *Shigella sonnei*. It was also learned that the child was enrolled in a daycare center on post. This was of particular concern because daycare centers, particularly those with diapered children, are considered ideal settings for the spread of shigellosis.¹ The director of the daycare center was notified about the potential spread of shigella among children at the daycare center. Later that day, the director called the community health nurse about another child with diarrhea from the same preschool room. It was also discovered that the father of this child had been experiencing diarrhea for approximately 4 days.

During the afternoon of 3 September 1996, the daycare center was inspected and the director informed the community health nurse that an employee from the same preschool room had called in sick that day. A telephone call to this individual confirmed that she was symptomatic with diarrhea. The employee also mentioned that 2 other employees from the same preschool room had been sick with diarrhea over the weekend. The community health nurse recommended that all individuals symptomatic with diarrhea submit stool specimens.

A total of 18 culture confirmed cases of *S. sonnei* were reported from Ft. Belvoir between 23 August and 20 September 1996 (Figure 1). Of the 18 reported cases, 11 are directly related to the daycare center. This includes 7 children enrolled in the daycare center and 4 employees. Four cases were indirectly related to the daycare center, including 2 parents (1 active duty), and 2 siblings of children that attend the center. The other 3 cases were active duty soldiers that have not been epidemiologically linked to the cases at the daycare center. There have been no cases of *S. sonnei*, other than those at Ft. Belvoir, reported in Fairfax County, VA during this time.

Several measures have been taken to control the spread of Shigella at the daycare center. An Environmental Health Technician inspected the center and gave presentations about hand washing to the children and the daycare providers. All parents were notified of the problem and

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were encouraged to submit stool specimens to the laboratory, be alert for symptoms, and observe strict handwashing procedures when using the restroom and handling food. The hospital commander requested stool cultures on all asymptomatic daycare providers and required that all employees positive for *S. sonnei* be treated, cleared by their primary care providers, and processed by Occupational Health before returning to work.

Information submitted by Suzie Farley, RN, Preventive Medicine, Department of Community Health Nursing, Fort Belvoir, VA

References

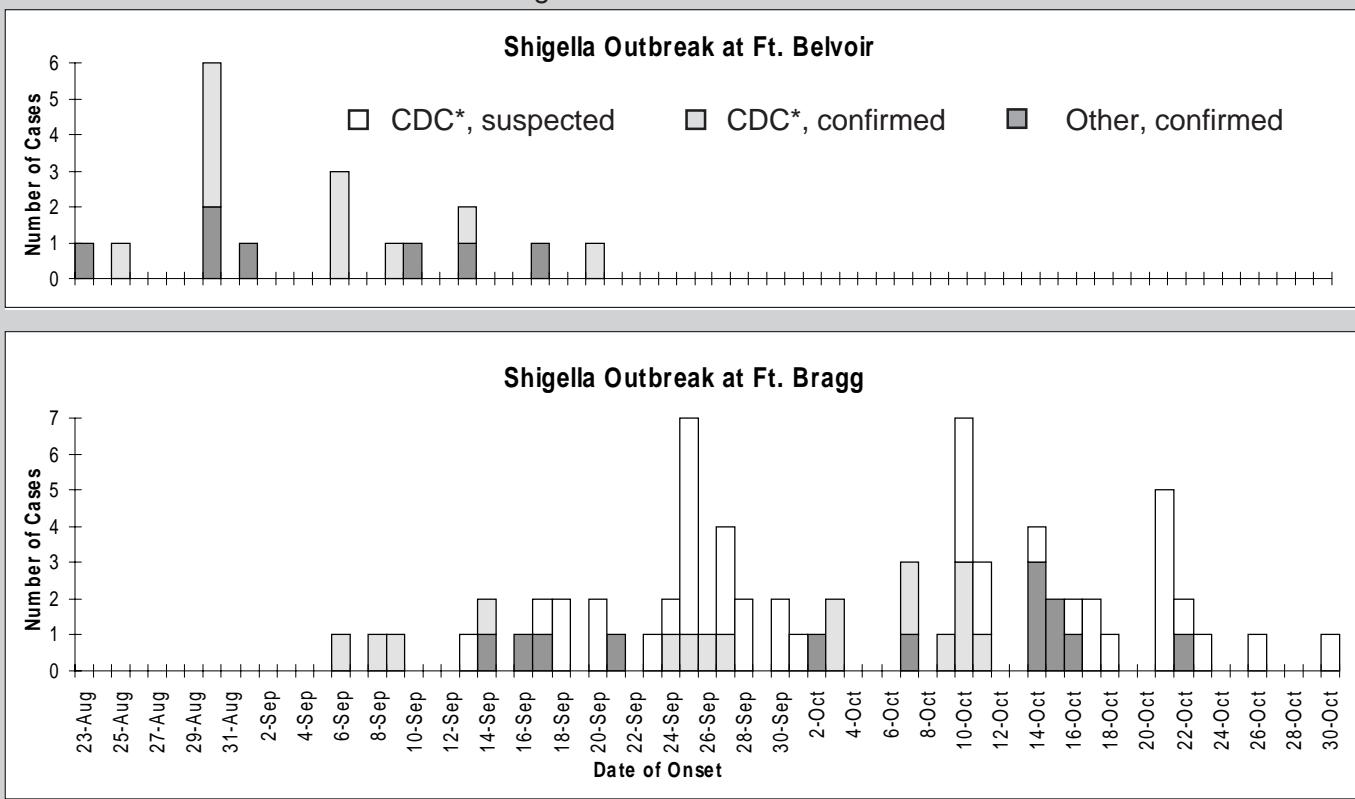
1. Mohle-Boetani JC, Stapleton M, Finger R, Bean NH, Poundstone J, Blake PA, and Griffin PM. Community Shigellosis: Control of an outbreak and risk factors in child day-care centers. Am J Public Health. 1995;85:812-816.

Outbreak #2

Between 6 September and 30 October 1996, there were 61 cases of diarrheal illness among children and staff of a large child development center at Fort Bragg, North Carolina. All affected individuals submitted at least 1 stool specimen for culture. Of these, 17 (28%) were positive for *Shigella sonnei*. During this period, *S. sonnei* were isolated from an additional 13 individuals who were indirectly associated with the center, e.g., parents, siblings, playmates of children or staff (Figure 1). The principal clinical syndrome among cases included profuse watery diarrhea (occasionally blood tinged) and moderate fever lasting several days. There were no serious illnesses or hospitalizations associated with the outbreak. The outbreak associated strain of *S. sonnei* had a typical antimicrobial sensitivity pattern.

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Figure 1. Suspected and confirmed cases of *Shigella* at Ft. Belvoir and Ft. Bragg
23 August 1996 to 30 October 1996



* Child Development Center employee or enrolled child.

TABLE I. Cases of selected notifiable conditions, United States Army*
October, 1996

Reporting MTF/Post**	Total number of reports submitted Oct, 1996	Environmental Injuries			Viral Hepatitis			Malaria	Varicella		
		Active Duty		CO intox.	A	B	C		Active Duty	Active Duty	
		Heat	Cold						Active Duty	Other Adult	
		Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	
NORTH ATLANTIC RMC											
Walter Reed AMC	29	1	-	-	1	1	-	1	5	1	
Aberdeen Prov. Ground	11	1	3	-	-	-	-	-	-	-	
FT Belvoir, VA	11	-	-	-	1	1	-	-	-	-	
FT Bragg, NC	38	18	7	-	-	-	-	3	-	-	
FT Drum, NY	14	6	21	-	-	1	-	1	5	-	
FT Eustis, VA	32	2	-	-	1	-	-	-	-	1	
FT Knox, KY	36	-	2	-	2	2	7	-	-	-	
FT Lee, VA	10	-	-	-	-	-	-	-	-	-	
FT Meade, MD	37	-	1	-	1	-	1	-	8	1	
USMA, West Point, NY	-	-	-	-	-	-	-	-	-	-	
CENTRAL RMC											
Fitzsimons AMC	-	-	-	-	-	-	-	1	-	-	
GREAT PLAINS RMC											
Brooke AMC	1	-	-	-	-	-	-	1	-	-	
FT Carson, CO	70	-	32	-	1	4	-	-	1	-	
FT Hood, TX	-	2	1	-	1	3	-	-	6	-	
FT Leavenworth, KS	3	-	-	-	-	-	1	-	-	-	
FT Leonard Wood, MO	23	1	2	-	1	1	-	-	17	3	
FT Polk, LA	-	-	-	-	-	-	-	-	-	-	
FT Riley, KS	6	1	-	-	-	-	-	-	-	-	
FT Sill, OK	25	4	-	-	4	5	3	-	-	-	
Panama	5	3	-	-	4	4	3	-	-	1	
SOUTHEAST RMC											
Eisenhower AMC	21	2	-	-	-	2	-	-	2	-	
FT Benning, GA	2	8	-	-	-	-	-	-	9	-	
FT Campbell, KY	59	3	2	-	1	-	-	-	-	-	
FT Jackson, SC	-	-	-	-	-	-	-	-	-	-	
FT McClellan, AL	3	-	1	-	-	1	-	-	1	-	
FT Rucker, AL	-	4	-	-	-	-	-	-	-	-	
FT Stewart, GA	-	-	-	-	-	1	-	-	-	-	
SOUTHWEST RMC											
Wm Beaumont AMC	35	-	-	-	1	1	-	-	3	-	
FT Huachuca, AZ	-	-	-	-	-	-	-	-	-	-	
FT Irwin, CA	8	6	-	-	1	1	-	-	-	-	
NORTHWEST RMC											
Madigan AMC	-	-	-	-	-	-	-	-	-	-	
FT Wainwright, AK	9	-	81	-	-	-	-	-	-	-	
PACIFIC RMC											
Tripler AMC	24	-	1	-	1	1	-	1	-	-	
OTHER LOCATIONS											
Europe	42	1	-	-	1	4	2	4	5	1	
Korea	6	1	1	-	-	3	-	9	6	-	
Total	560	64	155	0	22	36	17	21	68	8	

* Based on date of onset.

** Reports are included from main and satellite clinics. Not all sites reporting.

Date of Report: 7-Nov-96

TABLE I. Cases of selected notifiable conditions, United States Army* (continued)
October, 1996

Reporting MTF/Post**	Salmonellosis			Shigella			Campylobacteriosis			Tuberculosis	
	Active Duty	Other		Active Duty	Other		Active Duty	Other		Active Duty	Other
		Adult	Child		Adult	Child		Adult	Child		
	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996
NORTH ATLANTIC RMC											
Walter Reed AMC	2	4	2	-	3	1	5	9	1	-	4
Aberdeen Prov. Ground	-	-	-	-	-	-	-	-	-	-	-
FT Belvoir, VA	2	7	3	4	6	12	2	5	-	-	-
FT Bragg, NC	4	4	21	10	6	28	5	1	1	-	-
FT Drum, NY	2	-	-	-	-	-	-	-	-	-	-
FT Eustis, VA	-	2	3	-	2	3	-	1	4	-	-
FT Knox, KY	-	1	1	-	-	-	-	-	-	-	-
FT Lee, VA	-	-	-	-	-	-	-	-	-	-	-
FT Meade, MD	-	6	5	2	1	1	-	-	-	-	2
USMA, West Point, NY	-	-	-	-	-	-	-	-	-	-	-
CENTRAL RMC											
Fitzsimons AMC	-	-	-	-	1	-	-	-	-	-	-
GREAT PLAINS RMC											
Brooke AMC	-	-	-	-	-	-	-	-	-	-	1
FT Carson, CO	1	-	2	1	-	-	1	-	1	-	-
FT Hood, TX	-	-	-	-	-	-	-	-	-	-	-
FT Leavenworth, KS	-	-	-	1	-	-	1	1	-	-	1
FT Leonard Wood, MO	-	-	3	-	-	-	-	-	-	-	-
FT Polk, LA	-	-	-	-	-	-	-	-	-	-	-
FT Riley, KS	-	-	-	-	-	-	-	-	-	-	-
FT Sill, OK	-	-	-	-	-	-	-	-	-	-	-
Panama	-	2	17	3	-	7	1	3	15	-	1
SOUTHEAST RMC											
Eisenhower AMC	1	-	-	-	-	1	-	-	-	-	1
FT Benning, GA	-	-	-	-	-	-	-	-	-	-	-
FT Campbell, KY	1	-	-	-	1	2	4	4	2	-	1
FT Jackson, SC	-	-	1	-	-	-	-	-	-	1	1
FT McClellan, AL	-	-	-	-	1	-	-	-	-	-	-
FT Rucker, AL	-	-	-	-	-	-	-	-	-	-	-
FT Stewart, GA	1	-	1	-	-	-	-	-	-	-	-
SOUTHWEST RMC											
Wm Beaumont AMC	1	2	3	-	-	-	-	-	-	-	-
FT Huachuca, AZ	-	-	-	-	-	-	-	-	-	-	-
FT Irwin, CA	-	-	-	-	-	-	-	-	-	-	-
NORTHWEST RMC											
Madigan AMC	-	-	-	-	-	-	-	-	-	-	-
FT Wainwright, AK	-	-	-	-	-	-	1	-	-	-	-
PACIFIC RMC											
Tripler AMC	1	-	3	2	-	-	8	7	7	-	2
OTHER LOCATIONS											
Europe	12	11	15	-	-	-	4	6	3	4	4
Korea	-	1	-	-	-	-	-	-	-	3	2
Total	28	40	80	23	21	55	32	37	34	8	20

* Based on date of onset.

** Reports are included from main and satellite clinics. Not all sites reporting.

Date of Report: 7-Nov-96

TABLE II. Cases of notifiable sexually transmitted diseases, United States Army
October, 1996

Reporting MTF/Post*	Chlamydia		Urethritis non-spec.		Gonorrhea		Herpes Simplex		Syphilis Prim/Sec		Syphilis Latent		Other STDs**	
	Cur. Month	Cum. 1996	Cur. Month	Cum. 1996	Cur. Month	Cum. 1996	Cur. Month	Cum. 1996	Cur. Month	Cum. 1996	Cur. Month	Cum. 1996	Cur. Month	Cum. 1996
NORTH ATLANTIC RMC														
Walter Reed AMC	6	73	-	31	2	37	2	47	-	2	-	1	-	2
Aberdeen Prov. Ground	4	15	6	17	-	12	1	3	-	-	-	-	-	-
FT Belvoir, VA	1	49	-	1	-	13	-	2	-	-	-	-	-	-
FT Bragg, NC	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FT Drum, NY	3	57	1	18	3	57	1	14	-	-	-	-	1	1
FT Eustis, VA	4	70	-	-	4	22	-	-	-	-	-	-	-	-
FT Knox, KY	5	117	-	-	5	57	-	53	-	-	-	3	-	-
FT Lee, VA	6	77	-	1	4	38	-	2	-	-	-	-	-	-
FT Meade, MD	12	35	1	26	1	5	3	21	-	1	-	-	-	-
USMA, West Point, NY	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CENTRAL RMC														
Fitzsimons AMC	-	1	-	-	-	-	-	-	-	-	-	1	-	-
GREAT PLAINS RMC														
Brooke AMC	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FT Carson, CO	15	249	21	254	6	85	-	29	-	1	-	1	-	-
FT Hood, TX	-	231	-	81	-	75	-	30	-	2	-	-	-	2
FT Leavenworth, KS	1	16	-	-	-	7	-	3	-	-	-	-	-	-
FT Leonard Wood, MO	10	74	2	37	3	22	-	2	-	-	-	-	-	-
FT Polk, LA	-	23	-	-	-	12	-	2	-	-	-	-	-	-
FT Riley, KS	-	104	-	-	-	28	-	2	-	-	-	-	-	1
FT Sill, OK	-	106	-	33	-	58	-	15	-	-	-	-	-	7
Panama	-	82	-	-	-	3	-	6	-	-	-	-	-	11
SOUTHEAST RMC														
Eisenhower AMC	2	130	-	1	-	47	1	67	-	2	-	-	-	1
FT Benning, GA	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FT Campbell, KY	8	338	-	-	10	129	1	25	-	3	-	-	1	2
FT Jackson, SC	-	278	-	-	-	15	-	11	-	-	-	-	-	3
FT McClellan, AL	-	19	-	-	-	15	-	-	-	1	-	-	-	-
FT Rucker, AL	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FT Stewart, GA	-	14	-	24	-	11	-	7	-	1	-	-	-	2
SOUTHWEST RMC														
Wm Beaumont AMC	10	180	-	-	-	20	-	62	-	-	-	2	-	-
FT Huachuca, AZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FT Irwin, CA	-	16	-	-	-	10	-	2	-	-	-	1	-	-
NORTHWEST RMC														
Madigan AMC	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FT Wainwright, AK	-	21	-	-	-	2	-	3	-	-	-	-	-	-
PACIFIC RMC														
Tripler AMC	13	167	-	-	-	34	4	68	-	-	-	2	-	-
OTHER LOCATIONS														
Europe	2	109	-	6	-	34	-	11	-	-	-	1	-	2
Korea	-	13	-	-	-	6	-	5	-	-	-	-	-	3
Total	102	2664	31	530	38	854	13	492	0	13	0	12	2	37

* Reports are included from main and satellite clinics. Not all sites reporting.

Date of Report: 7-Nov-96

** Other STDs: (a) Chancroid (b) Granuloma Inguinale (c) Lymphogranuloma Venereum (d) Syphilis unspec. (e) Syph, tertiary (f) Syph, congenital

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Other child care facilities on Fort Bragg were not implicated in the outbreak. However, during this period, cases of *S. sonnei* that were linked epidemiologically to the Fort Bragg center occurred in a private child care provider's home off-post. While receiving treatment for shigella, the index case from the on-post outbreak was excluded from attendance at the center. During this brief time, the child was admitted for care at a private provider's home off-post. The private provider was not informed of the on-post outbreak or of the infection of the child. At least 2 secondary cases were attributed to this contact.

Control measures included aggressive and extensive case finding; cultures of all symptomatic children, staff, and others associated with the center; prompt initiation of antibiotic therapy in shigella confirmed and symptomatic cases; exclusion from the center of all individuals with diarrheal illness; exclusion from the center of culture confirmed cases until completion of indicated therapy and documentation of a post-treatment negative culture. Finally, there was extensive and ongoing education of the center staff regarding principles of sanitation, with emphasis on the importance of hand washing.

In summary, since the beginning of September 1996, a total of 30 individuals directly or indirectly associated with a single child development center at Fort Bragg had documented infections with *S. sonnei*. An additional 45 individuals directly or indirectly associated with the center had diarrheal illnesses with negative stool cultures; these individuals were considered possible outbreak-associated cases. The proportion of the culture negative diarrhea cases that were actually infected but from whom pathogens were not recovered (for a variety of possible reasons) is indeterminate. No new cases of *S. sonnei* have been documented among children or providers at the affected child development center since 18 October 1996.

Information provided by Kelly T. McKee, COL, MC, Chief, Preventive Medicine Service, Fort Bragg, NC

Editorial comment: These outbreaks of shigella-associated diarrhea in children and staffs of child development centers at Forts Bragg and Belvoir are interesting and informative for several reasons: First, the outbreaks began and progressed almost simultaneously at these geographically disparate installations; second, *Shigella sonnei* was the "epidemic strain" at each installation; third, at both installations, the outbreak spread among children and staff at the center and to siblings, parents, and playmates outside the center; fourth, despite aggressive and extensive efforts, the outbreaks were not controlled for weeks to months; and, finally, at both installations, the clinical illnesses associated with shigella infections were relatively mild.

Shigella is a gram negative bacteria that produces acute disease ("shigellosis") by invading the large and distal small intestines. Shigellosis typically presents with diarrhea, fever, nausea, vomiting, cramps, and tenesmus. Stools typically contain blood and mucus ("dysentery") although many cases present with only watery diarrhea.

The genus Shigella is comprised of four species: *S. dysenteriae*, *S. flexneri*, *S. boydii*, and *S. sonnei*. As with many other infectious diseases, the severity of illness caused by shigella infection depends on factors related to the host (e.g., age, nutritional status) and the serotype. *S. sonnei* typically causes a relatively mild, self limited illness of several days duration in contrast to *Shigella dysenteriae* 1 ("shiga bacillus"), associated with severe, often life threatening disease and serious complications.

The public health significance of shigellosis results largely from its unusual fecal-oral communicability. As few as 10-100 organisms can produce disease in susceptible hosts. Because it is highly transmissible, its spread can be explosive in settings where public health infrastructures are disrupted (e.g., war, natural disasters) or in crowded, unsanitary environments. High risk settings include prisons, refugee camps, psychiatric hospitals, and

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Epidemiologic report

Follow-up: Cluster of TB Skin Test Converters, US Disciplinary Barracks, Fort Leavenworth, Kansas

The February 1996 issue of the MSMR reported preliminary results of an evaluation of a cluster of TB skin test conversions at the US Disciplinary Barracks (USDB) at Fort Leavenworth, Kansas. This report describes results of retesting and follow-up of skin test converters.

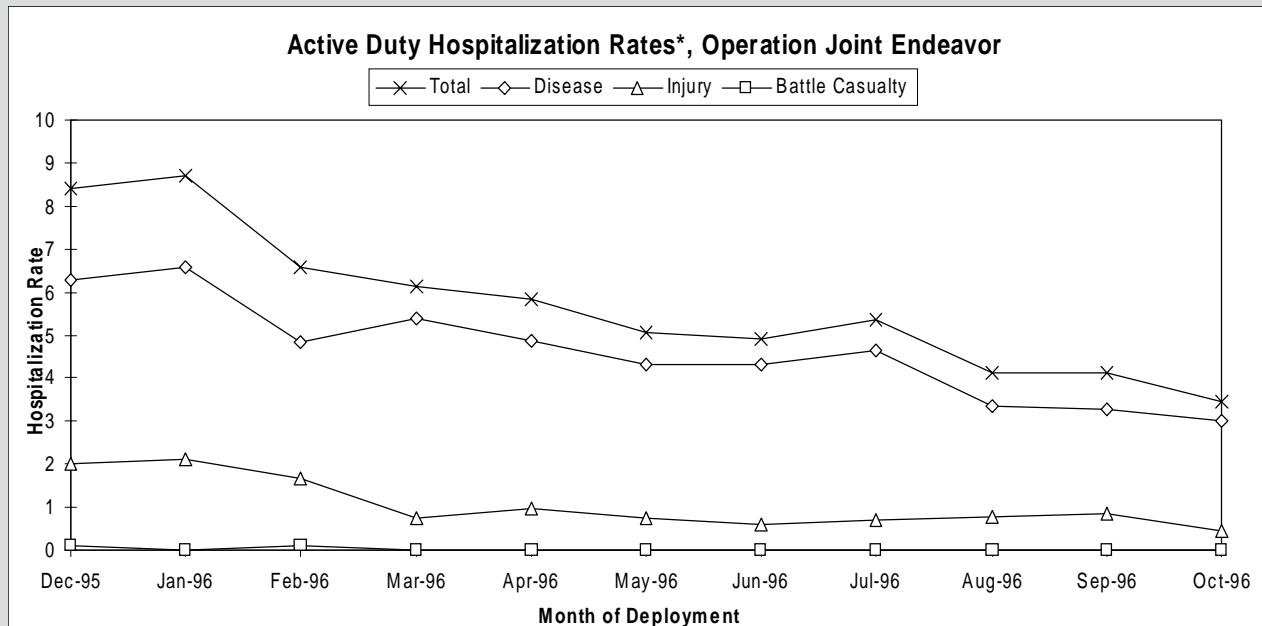
From January 1994 to October 1995, only five skin test converters were detected during routine TB screening at the USDB. During this 21 month period, Tubersol was the skin test antigen. In contrast, during the four month period between October 1995 and January 1996, 35 TB skin test converters were detected. Upon review of medical histories, one was documented as previously skin test positive. Thus, 34 guards and inmates were classified as "mass screening skin test converters."

Clinical follow-up of all skin test positives at the USDB found no active cases. During the period of the apparent outbreak, Apolisol PPD was the primary skin test antigen. Subsequent review of the medical literature documented reports of false positive TB skin tests associated with the use of Apolisol.

Recent converters at the USDB were retested to assess the possibility that the apparent cluster was related to false positive reactions to a skin test antigen with different characteristics from that previously used. Apolisol and Tubersol were applied simultaneously to the arms of 33 recent TB skin test converters. Of these, 30 were available to reliably assess reactions to both antigens. Of all 60 skin tests applied (two tests per individual), 39 (65%)

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Surveillance Trends, Bosnia



Bosnia Update**TABLE III. Active Duty Hospitalization Rates*, Operation Joint Endeavor, 11Dec95 - 7Nov96**

ICD-9 Category	Males							Females							All
	< 20	20-24	25-29	30-34	35-39	>= 40	Total M	< 20	20-24	25-29	30-34	35-39	>= 40	Total F	
Infectious and Parasitic Diseases	20.5	5.3	3.7	4.2	2.5	1.2	4.1	13.7	4.8	6.8	10.4	0.0	0.0	5.4	4.3
Neoplasms	2.6	0.3	0.5	0.5	0.4	1.2	0.6	13.7	2.4	0.0	0.0	2.8	0.0	1.4	0.7
Endocrine, Nutritional, and Metabolic Disease and Immunity Disorders	2.6	0.3	0.8	0.3	0.4	0.8	0.6	0.0	1.2	0.0	8.3	0.0	0.0	1.8	0.7
Diseases of the Blood and Blood-Forming Organs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mental Disorders	7.7	4.0	2.9	1.6	0.8	1.6	2.7	0.0	6.0	8.2	0.0	5.7	3.1	5.0	3.0
Diseases of the Nervous System and Sense Organs	10.3	3.2	3.6	1.3	3.7	1.2	2.9	0.0	3.6	8.2	8.3	5.7	0.0	5.4	3.2
Diseases of the Circulatory System	0.0	1.6	2.2	4.8	5.8	3.2	3.0	0.0	0.0	1.4	0.0	5.7	3.1	1.4	2.8
Diseases of the Respiratory System	0.0	4.5	3.2	3.7	2.5	2.8	3.5	0.0	13.2	5.4	4.2	5.7	3.1	7.1	3.9
Diseases of the Digestive System	18.0	12.2	8.6	7.7	4.9	4.8	8.8	54.7	13.2	10.9	4.2	11.4	3.1	10.7	9.0
Diseases of the Genitourinary System	5.1	3.1	4.9	5.3	2.9	4.4	4.1	0.0	37.3	19.1	6.2	8.5	9.2	19.3	5.9
Complications of Pregnancy, Childbirth, and the Puerperium**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	1.4	2.1	0.0	0.0	1.8	0.2
Diseases of the Skin and Subcutaneous Tissue	7.7	3.7	1.4	2.1	1.2	0.8	2.2	0.0	1.2	0.0	4.2	2.8	0.0	1.4	2.1
Diseases of Musculoskeletal System and Connective Tissue	7.7	6.6	7.4	7.2	3.7	4.0	6.3	0.0	4.8	5.4	0.0	14.2	9.2	5.7	6.2
Congenital Abnormalities	2.6	0.5	0.5	0.3	0.4	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Symptoms, Signs, and ill-Defined Conditions	7.7	8.7	7.4	7.7	5.8	4.4	7.3	95.8	36.1	10.9	16.7	8.5	3.1	20.4	8.8
Injury and Poisoning	15.4	17.8	12.5	11.9	8.2	4.0	12.5	41.1	27.6	6.8	6.2	8.5	0.0	13.2	12.6
All Hospitalizations	107.8	71.8	59.7	58.6	43.1	34.5	59.1	219.0	155.0	84.4	70.8	79.6	33.6	100.0	63.9

* Rates are calculated per 1000 soldiers per year based on cumulative person time.

** Includes normal delivery

Source: PARRTS Data, USA Patient Administration Systems and Biostatistical Activity, Fort Sam Houston, TX

Continued from page 7

child and elderly care centers.

Prevention and control of shigella outbreaks within child care centers—and secondarily to family members, playmates, and other child care settings—require rigid compliance with personal hygienic practices among all children, staff, and visitors. In particular, handwashing with soap and water after each use of the bathroom, after each diaper change, and before handling food is absolutely essential. In this regard, it is important that

day care centers have sufficient handwashing facilities that are conveniently located, adequately cleaned and stocked, and easy for all (including small children) to use. Whenever possible, food preparation and diaper changing duties should be separated among staff members. Finally, child care and local preventive medicine staffs should work closely to prevent introductions of shigella into child care settings and to control outbreaks as soon as possible after they occur.

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were positive (e.g., >10 mm difference from the last documented negative test); however, fourteen of the 60 skin tests (23%) had 0 mm of induration. Nine (30%) of the 30 individuals who were retested had at least one reaction of 0 mm. Induration to Tubersol was significantly less than to Aplisol when applied to different arms of the same individuals ($p=.0006$, Wilcoxon sign rank).

There was a significant, dose-response relationship between risk of skin test conversion (defined for analysis as inmates positive to all TB skin tests applied) and work in the screen printing shop. Risk of conversion increased by approximately 1.46-fold per additional month of screen printing shop exposure. No other factors were statistically significantly associated with increased risk among inmates. No exposures were identified as significant risk factors among guards.

No active TB cases were identified among individuals who had worked at the screen printing shop and left the USDB between October and December 1995. Army hospitalization records continue to be monitored to identify active TB cases with epidemiologic links to the USDB.

The manufacturer of Aplisol tested the two lots used for mass screening at the USDB and found that both were within FDA specifications for biological activity.

Annual birth month TB testing was reinstated at the USDB in March 1996. No new conversions

were identified during the first three months after resumption of routine testing.

Conclusions and follow-up: Based on the estimated 17-34-fold increase in TB skin test conversion risk during the period October 1995 through January 1996, it is likely that an active TB case was present at (and subsequently left) the USDB during the period. False positive reactions related to the recent change to a different skin test antigen and the relative unreliability of TB skin testing in low prevalence populations may have accounted for some of the apparent conversions.

In an effort to standardize skin test placement, reading, and recordkeeping, all TB screening among guards, inmates, civilians, and volunteers at the USDB is now conducted by personnel from the Preventive Medicine Service. A single product is now used as the antigen for all TB testing at the USDB. A registry of individuals who are skin test positive is now maintained to facilitate compliance with preventive therapy and clinical follow-up (e.g., signs, symptoms, radiographs). Finally, at the USDB and through the TB Control Program at the Kansas Department of Health and Environment, all TB skin test conversions detected in low prevalence populations in which no active TB case is found are confirmed by repeat testing.

Submitted by SL Patrick, J Karwacki, W Corr, R Ferguson, and J Calder.

ARD Surveillance UpdateLegend

—	ARD Rate	= (ARD cases / Trainees) * 100
— · —	SASI*	= ARD Rate * Strep Rate**

FT Benning

Ft Jackson

Ft Knox

Ft Leonard
Wood

Ft McClellan

Ft Sill

Table IV. ARD surveillance rates, submitted by Army TRADOC posts

* Strep/ARD Surveillance Index (SASI)

**Strep Rate= (GABHS(+)/ Cultures) * 100

Note: SASI has proven to be a reliable predictor of serious strep-related morbidity, especially acute rheumatic fever.

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